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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,347	02/19/2002	Christopher J. Tatar	FS-00689	1368
7055	7590	10/20/2005	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C.			SHARMA, RASHMI K	
1950 ROLAND CLARKE PLACE			ART UNIT	
RESTON, VA 20191			PAPER NUMBER	

3651

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/076,347	Applicant(s) TATAR ET AL.	
	Examiner Rashmi K. Sharma	Art Unit 3651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-22 and 24-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 24-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/19/02 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-11, 14-16 and 18-22, 24, 25 and 26 are rejected under 35

U.S.C. 102(e) as being anticipated by Bonnet (U.S. Patent number 6,189,702).

Bonnet discloses an apparatus and method for diverting packages comprising a frame member (30, 32) having an entrance and a plurality of exits (15, 13, 16) adapted for use with an existing conveyor system (12, 15) for transporting an item in an original direction, a movable bi-directional diverting mechanism (see Figure 1) extending from the frame member (30, 32), the movable diverting mechanism movable perpendicularly to the original direction of travel of the item being transported on the conveyor (12, 15) and diverting the item in either a first direction or a second opposing direction with respect to the first direction, the movable diverting mechanism includes a downward extending movable blade mechanism (100) extending from the frame member (30, 32) to divert the item in either the first direction or the second opposing direction, the movable diverting mechanism remains stationary so that the item can pass

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therethrough (please read column 10 lines 45-55), the blade mechanism (100) having first and second surfaces adapted for diverting the item and a longitudinal axis whereby the first and second surfaces face opposing directions or exits substantially perpendicularly to the original direction of travel of the item and the longitudinal axis is substantially parallel to the original direction of travel of the item and extending in a direction between the entrance and another of the exits, a moving mechanism including an actuator (42) and a glide mechanism (40) coupled to the blade mechanism (100) whereby the glide mechanism (40) extends across a frame member (30, 32) for moving the movable diverting mechanism between opposing exits (15, 13, 16) of the plurality of exits, further comprising a frame member (46) of the frame (30, 32) and a mounting mechanism (49) of the movable diverting mechanism, a plurality or series of sensors (see Figures 8 and 9) for monitoring or controlling actions of the downward extending movable blade member (100), the sensors including a home sensor (please read column 10 lines 35-67 and column 16 lines 26-65) for detecting a home position (R1, S1) and a second or new home position (R2, S2 or S3) of the movable diverting mechanism, at least one over travel sensor (read column 10 lines 35-67 and column 16 lines 26-65) for detecting an over travel position of the movable diverting mechanism, at least one photosensor (202) for detecting a flow of the items, an over current sensor for determining whether a current associated with the actuator (42) exceeds a threshold limit (please read column 11 lines 37-67, column 12 lines 1-47 and column 16 lines 26-65), wherein an excessive current associated with the actuator indicates that the existing conveyor system should be stopped and momentary contacts (212, 210, 204)

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which provide an input signal to control the movement of the movable diverting mechanism via the PLC 23.

Bonnet also discloses a first leg and a second leg forming the entrance (see Figure 2 and 3, the two rightmost legs), a third leg and the first leg forming a first exit (13 or 16) orthogonal to the entrance, a fourth leg and the second leg forming a second exit (13 or 16) being orthogonal to the entrance and the third leg and the fourth leg forming a third exit (the two leftmost legs) being in alignment with the entrance.

Bonnet also includes the method of diverting an item based on the control system and structural limitations discussed above.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 12 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonnet (U.S. Patent number 6,189,702) in view of Torbet et al. (U.S. Patent number 3,246,733).

Bonnet as disclosed above, fails to show hoods.

Torbet et al. does disclose a hood (26) having openings whereby the hoods are positioned at an entrance and each exit of the frame (see Figure 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to add the safety hoods of Torbet's invention to that of Bonnet's diverting mechanism in order to provide for a safety feature for the conveyor system arrangement and a safer environment for the employee's working with the conveyor system.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonnet (U.S. Patent number 6,189,702) in view of Torbet et al. (U.S. Patent number 3,246,733) and further in view of Cramer (U.S. Patent number 6,036,128).

Bonnet as modified by Torbet et al., fails to disclose a safety hood comprising an interlock switch for detecting a position of the hoods and providing a signal to a controller for shutting down movement of the movable diverting mechanism when any of the hoods are in an upright position or positioning each safety hood at each exit and entrance via hinges.

Cramer does disclose an interlock switch located for a hood assembly (please read column 3 lines 57-67 and column 4 lines 1-11) and a hinge (31).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to add the interlocking switch as taught by Cramer to the safety hood of Bonnet as modified by Torbet et al., in order to provide for an automated mechanical stop of the conveyor system for additional safety for when a worker needs to inspect within the hooded area of the conveyor system arrangement.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to position a separate safety hood at each entrance and exit of Bonnet's invention as a matter of design choice and user preference.

### ***Response to Arguments***

Applicant's arguments filed 7/6/05 have been fully considered but they are not persuasive.

Regarding claims 1 and 14, Applicant argues that Bonnet fails to disclose or suggest the "package divert mechanism", including "a frame member...including an entrance and a plurality of exits". However, as rejected above, Bonnet does indeed

disclose these claimed features. Each frame member (30) does indeed have an entrance (immediately upstream from the frame members) and a plurality of exits (one immediately downstream from the frame members and two laterally disposed between each side of the frame members), as can be clearly seen in Figure 1.

Regarding claims 8 and 25, Applicant argues that Bonnet fails to disclose or suggest "an over current sensor for determining whether a current associated with an actuator exceeds a threshold limit". However, the operating process disclosed in columns 11, 12 and 16 as cited and rejected above, clearly discloses an over current sensor for determining whether a current associated with an actuator exceeds a threshold limit, thereby halting the conveyor system. It should be noted that the current associated with the actuator is considered to be determined by the PLC depending on which position the paddle is placed in. Therefore, if the paddle is not in the ready to divert position (as discussed in column 16 lines 26-65), it has thereby exceeded a threshold limit, the PLC thereby halts the conveyor upon which the intended parcel to be diverted is being conveyed.

Similarly regarding claim 10, the home sensor and the over travel sensor are considered to be inherent to the Bonnet reference, otherwise the PLC would not be able to receive information from some sort of positioning sensor with information indicating whether or not the paddle was in a certain position. Therefore, in order for the Bonnet invention to operate as disclosed, sensors detecting the positioning of the paddle would necessarily have to be present in order for the invention to work.



Regarding claim 11, the limitation of "momentary contacts which provide an input signal to control the movement of the moveable diverting mechanism" are indeed disclosed in the Bonnet reference as rejected above. Applicant argues that a keyboard is not a "momentary contact", however the Examiner disagrees. Keyboard (212) does indeed meet the limitation of a momentary contact as described in Applicant's specification and in the context of the claims. Keyboard (210) comprises keys that are each considered to be "momentary contacts" providing input information to signal the PLC to control the movement of the diverting mechanism. Similarly, the encoder (210) can also be considered to be a "momentary contact" since the label upon which the parcel being conveyed is electronically read by the encoder to thereby allow the PLC to control which direction to divert that particular parcel via an input signal.

Regarding claims 18 and 22, Applicant argues that Bonnet fails to disclose "locating a first home position and a second home position of a diverting mechanism" or "positioning the diverting mechanism at one of the first home position and the second home position". As discussed above regarding claims 10 and 11, these quoted limitations in claim 18 are indeed disclosed in Bonnet and can be found in column 16 lines 26-65. Particularly column 16 lines 27- 30 "...and the PLC sends a check signal but receives a reply that a paddle 260a is not in ready position S1, that parcel will continue traveling, until the PLC receives a signal...." and column 16 lines 32-37 "At that time, the PLC sends a check signal that the paddle is in ready position S2. Upon receiving back a confirming signal that the paddle 260b is ready to diver the parcel, the PLC sends control signals to the servo-motor 272b instructing the servo-motor to drive

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the carriage 258b along the rail 256b, in the direction required...": Clearly, signals are being received and sent from the PLC to detect and confirm each home position (first or second) to thereby control the paddle in the desired position, according to the destination information. Applicant also argues that "...suspending movement of the diverting mechanism based on..." of any of the limitations claimed are not disclosed in Bonnet. However, Bonnet does disclose the suspension of the diverting mechanism based on at least 1) a detection of an item exceeding a threshold physical characteristic limit (i.e. the physical characteristic being the destination information on a parcel that is to be diverted further downstream, thereby halting the movement of any diverter upstream thereof) and 2) a detection that the diverting mechanism exceeds a travel limit (column 16 lines 26-32, indicating that the paddle has exceeded the travel limit or proper position by continuing to travel back to another position).

Regarding claims 12, 13 and 17, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Torbet does indeed disclose hoods being positioned at an entrance and each exit as shown in Figure 1.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR, 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rashmi K. Sharma whose telephone number is 571-272-6918. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on 571-272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

rks

  
GENE O. CRAWFORD  
SUPERVISOR/ENTER EXAMINER